

LXVIII.—*Pseudodiadema Jessoni*, *sp. n.*, an Echinoid from the English Oxford Clay. By J. W. GREGORY, D.Sc., F.G.S.

Pseudodiadema Jessoni, *sp. n.*

Diagnosis.—Test small, high, tumid. Aboral half slightly more conical than the lower.

Apical system fairly large, less than half the diameter of the test, pentagonal.

Ambulacra narrow. (The plates are normal, *i. e.* simple primary plates near apical system and compound plates of three primaries at ambitus.) Two rows of small tubercles down each ambulacrum.

Interambulacra.—Seven or eight plates in each series in the adult. The plates are high; each of the five middle plates has a single large tubercle upon it, occupying nearly the whole of the plate. The uppermost plate has no tubercle; the uppermost tuberculate plate has a complete scrobicular circle; in the remainder the scrobicular areas are confluent. The granulation occurs mainly as a narrow band along the middle of the interambulacrum, but it is very limited in amount.

Peristome large, circular; deep branchial clefts.

Dimensions of E 3937:—

	millim.
Diameter	14
Height	8
Diameter of apical area	6
" peristome	8
Width of ambulacrum at ambitus	2.25
" interambulacrum at ambitus	6.25
Number of pore-pairs in one series	25-26
Number of interambulacral plates in one series ..	7 or 8

Distribution.—Oxford Clay, St. Ives, Hunts. Collected by T. Jesson, Esq.

B.M. type E 3936; larger specimen E 3937.

This small Echinid is of interest as the only species as yet recorded from the Oxford Clay of this country. The British Museum collection contains twenty specimens which were found by Mr. Jesson, and there are others in the Woodwardian Museum at Cambridge. The species is characterized especially by its high unituberculate plates, thick form, confluent scrobicular areas, and the sparseness of the granules.

The large size of the apical area suggests at first that the

Echinid may be an *Acrosalenia*; but the structure of the ambulacral plates near the peristome shows that it belongs to a different family. In spite of the absence of the apical system there is no doubt that it is a *Pseudodiadema*.

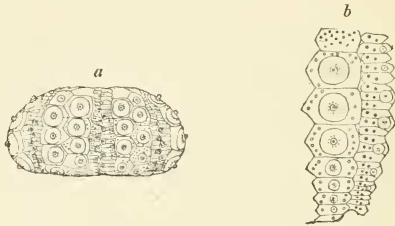


Fig. a.—Test of E 3936, $\times \frac{30}{1}$ diam.

Fig. b.—An ambulacrum and interambulacrum, $\times 5\frac{1}{2}$ diam.

Its closest ally is *Pseudodiadema Beaudouini*, Cott.*, from the Upper Oxfordian of Châtillon-sur-Seine, Côte d'Or, which is said to be very rare. From this the English species differs by being much higher in proportion to its width; the ratios in the new species are 1:3, and in *P. Beaudouini* 1:2; the number of interambulacral plates is smaller, the granules are less abundant, there is no tubercle on the uppermost interambulacral plate, and the pore-pairs near the peristome are in a straight single series.

The character of the granulation, the number of interambulacral plates, and the size of the interambulacral plates are points which the new species has in common with *Pseudodiadema Langi*, Desor †; but from this it differs by the large size of the ambulacral tubercles and the crowding of the pore-pairs near the peristome in the continental species. The same characters separate it from *Pseudodiadema priscum* (Ag.) ‡ and *Pseudodiadema drogiacum* § (Cott.), with both of which it has resemblances in some details.

* G. Cotteau, Pal. franç., Terr. jurass. t. x. pt. ii.; Échinides réguliers, livr. 7, 1882, p. 287, pl. cccxxxviii. figs. 1-5.

† See especially figures by Desor and de Loriol, Échinol. helvét. pl. xxiv. fig. 2.

‡ L. Agassiz, Cat. Syst. Ectyp. foss. Ech. Mus. Neocom. 1840, p. 8. Figured *e. g.* by Desor and de Loriol, *op. cit.* pl. xxiv. fig. 3; Cotteau, *op. cit.* pl. cccxxxv.

§ Cotteau, Et. Éch. Yonne, p. 156, pl. xix. figs. 6-10, and *op. cit.* pl. cccxliii. figs. 7-13.